

# Volcano Hazards Assessment for the Lassen Region, Northern California

By  
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### EXPLANATION

**VOLCANO HAZARD ZONES**  
[See text for additional explanation]

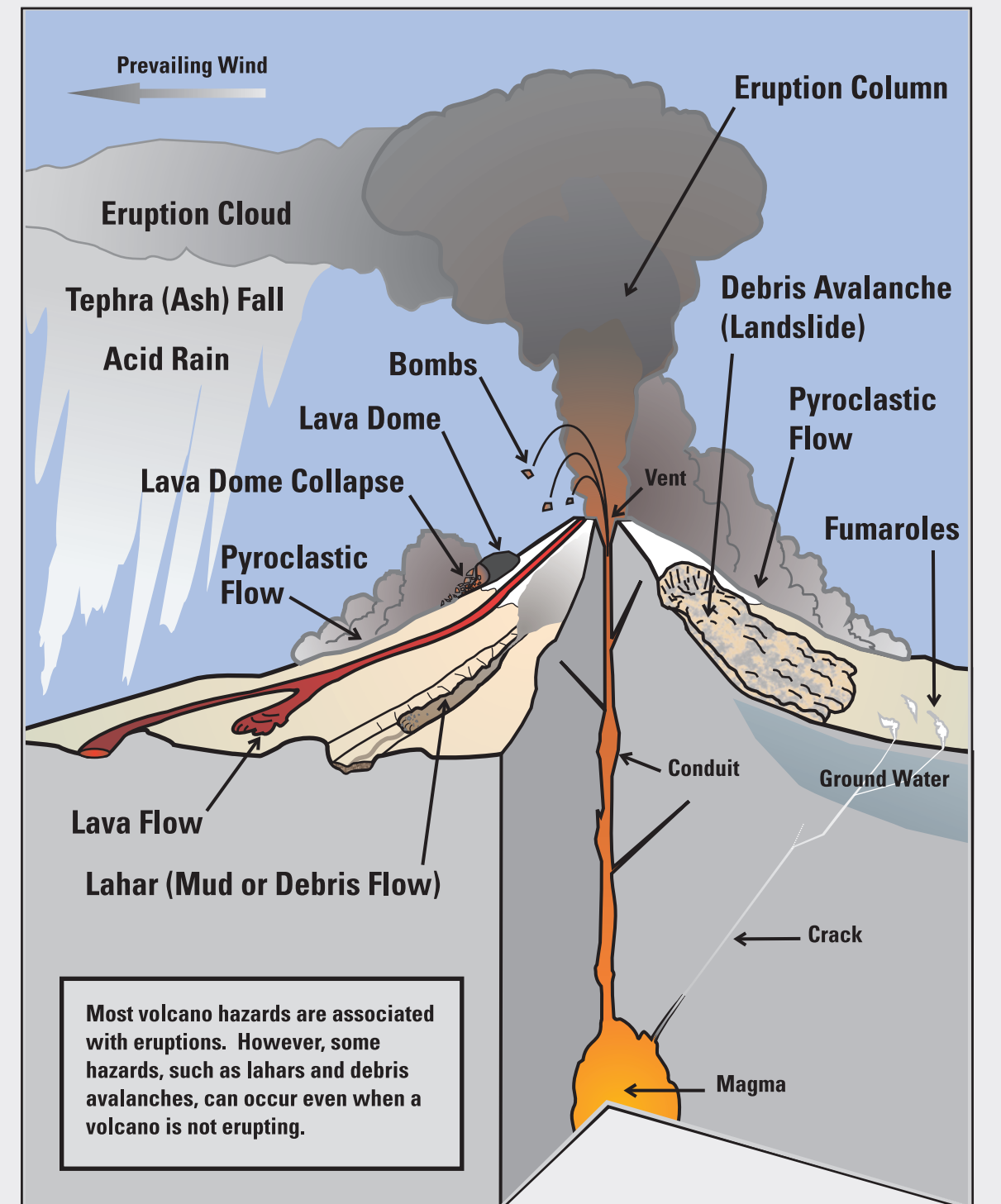
## LASSEN REGION

- The map displays the Lassen Volcanic Center (LVC) area, including Lassen Peak, Cinder Cone, and various lava flows. It delineates several hazard zones and infrastructure features:

  - Mafic Lava Flows:** Areas covered by mafic lava flows younger than 100,000 years.
  - Mafic Vent and Lava Flow Hazard Zone:** Area most likely for eruption of mafic vents and lava flows.
  - Mafic Ash Hazard Zone:** Area surrounding Mafic Vent and Lava Flow Hazard Zone and subject to more than 5 cm of mafic ash.
  - Silicic Ash Hazard Zone:** Area surrounding the Combined Flowage Hazards Zone and subject to more than 5 cm of silicic ash.
  - Lahar Hazard Zones:** Areas beyond the lava flows shown in the Silicic Vent, Lava Dome, and Flow Hazard Zone and subject to inundation by lahars.
  - Flood Hazard Zones:** Areas beyond the Lahar Hazard Zones subject to floods.
  - Vents:** Indicated by a star symbol.
  - Infrastructure:**
    - Major Power Lines:** Represented by purple lines.
    - Gas Pipeline:** Represented by an orange line.
    - Roads:** Represented by brown lines.
    - Railroads:** Represented by black lines with cross-ticks.

## INFRASTRUCTURE

- Major Power Lines
- Gas Pipeline
- Roads
- Railroads



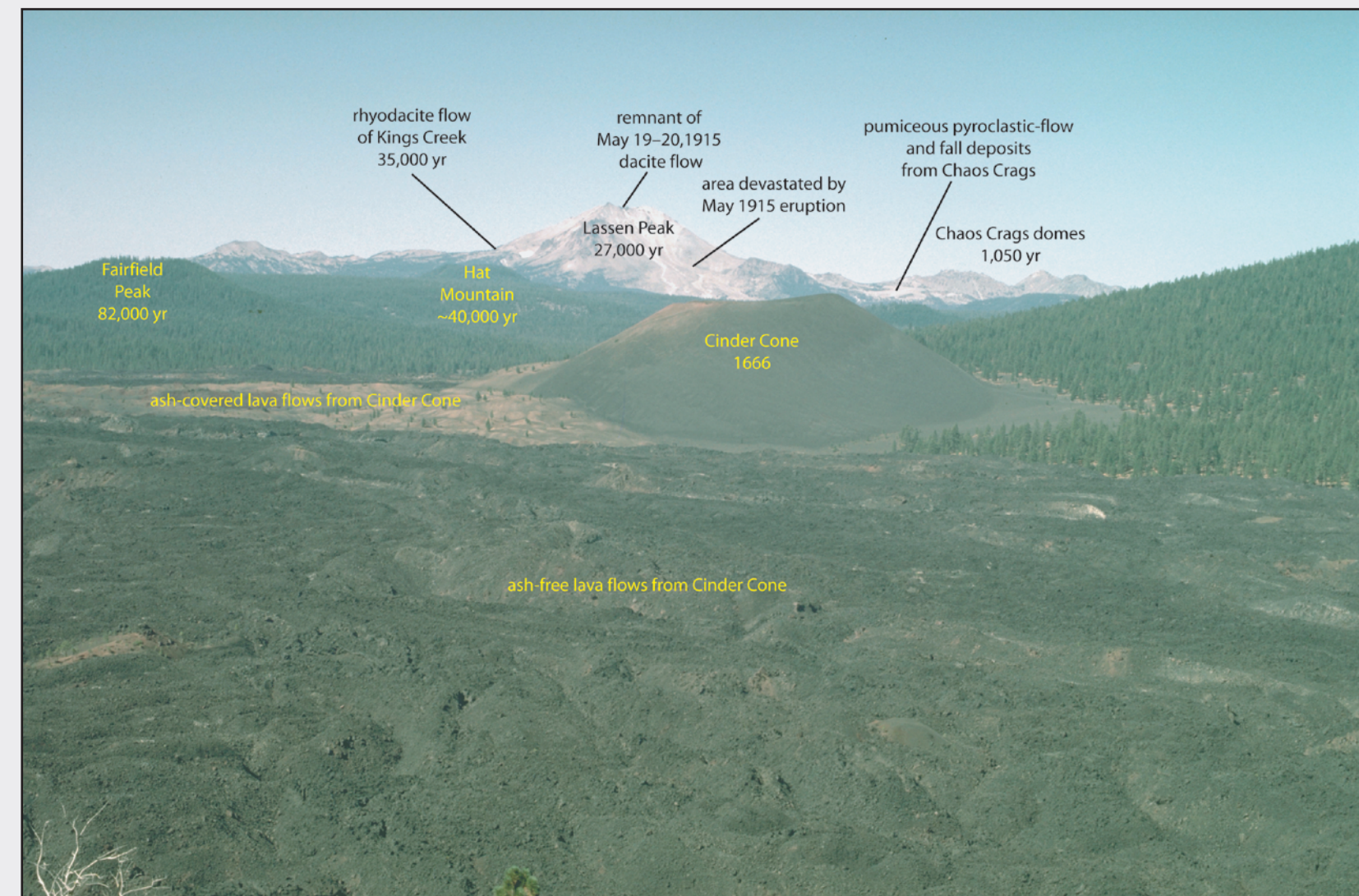
**Geologic Hazards at Volcanoes.** See text for discussion of volcano hazards. From Myers and Driedger, 2008.



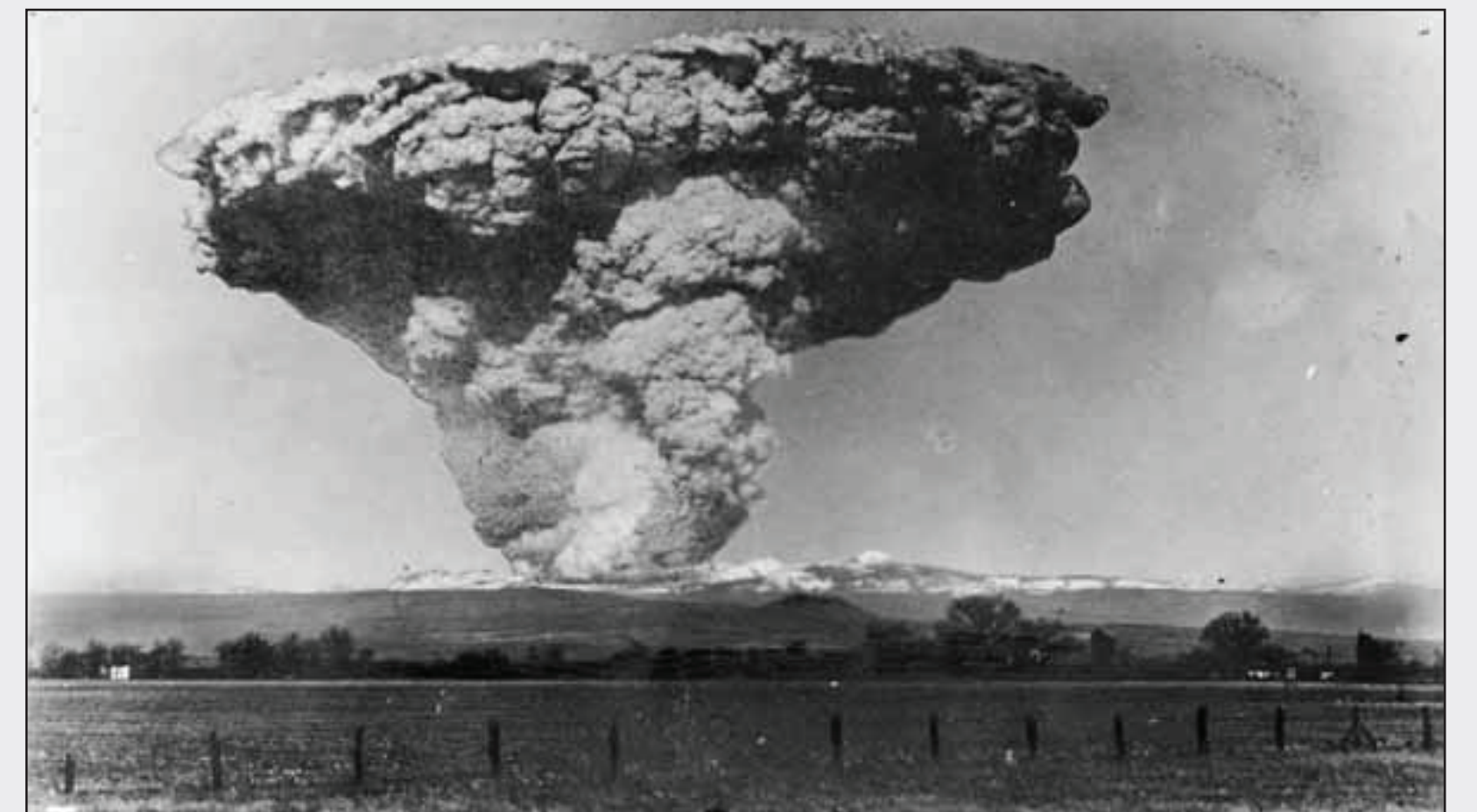
**Chaos Crags** is a group of six 1,050-year-old lava domes in the Lassen Volcanic Center. The composite tuff cone marks the vent for the pyroclastic flows that preceded eruption of the domes. Six domes erupted in alphabetical order (A–F). Domes C and F are not visible in this view; see figure 17 in the text. Dome D rises 700 m above its base.



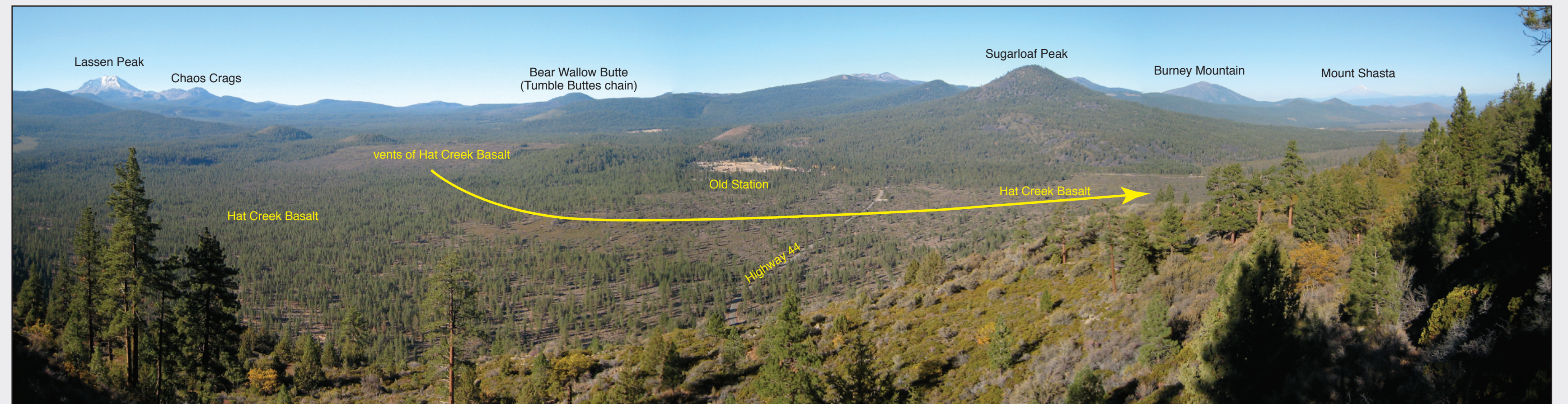
**Aerial view looking southeast at the area devastated by the 1915 eruptions of Lassen Peak.** The 27,000-year-old lava dome of Lassen Peak dominates the upper part of the view. The Devastated Area was affected by a debris avalanche, lahars, and a pyroclastic flow. See figure 7 in the text for additional description.



A view looking west at some of the Lassen Volcanic Center volcanoes less than 100,000 years old.



**Plume generated by the Lassen Peak eruption of May 22, 1915.** This plume reached a height of about 9 km and deposited ash in a lobe extending northeast about 480 km to Elko, Nevada. Historic photograph taken by R.I. Meyers from Anderson, California, in the Sacramento Valley about 65 km west of Lassen Peak. See figure 14 in the text for additional description.



Looking west from the top of the Hat Creek Fault towards the crest of the Cascade Range. Sugarloaf Peak is a young (46,000-year-old) lava cone. The Hat Creek Basalt is a young (24,000-year-old) fluid basalt flooding the valley floor between the Cascade Range and the Hat Creek Fault for nearly 30 km from the vents (yellow arrow shows flow direction).